

Applicant : J. Stuart Cumming
Appl. No. : 09/740,679
Examiner : Eduardo C. Robert
Docket No. : 13533.4033

Remarks

Favorable reconsideration of this application is requested.

In response to the Office Action dated December 6, 2006, the continuity data on page 1 has been updated as requested by the Examiner.

With regard to the Claim objection of Claim 53, the term “optic” has been changed to “haptics,” and it is believed that the claim is not informal. Also, it is noted that the lens shown in Figure 18 (actually Fig. 16-20) are described as being identical to the lens 32 of Figs. 1-8.

With respect to the double patenting rejection, Applicant will file a Terminal Disclaimer to the extent necessary, once claims are allowed in this application.

It is respectfully submitted that the present claims define patentable subject matter over the cited Schlegel patent. The following are the inventor’s comments about Schlegel, and Applicant will submit a declaration of the inventor to this effect if the Examiner so desires.

The Schlegel lens design in Schlegel’s 4,424,597 patent are not accommodating lenses, nor from the text are they designed to be, or thought to be, capable of accommodation.

For example:

(A) *Column 2, lines 28 – 30: “have as great a mechanical stability as possible...”*

(B) *Column 2, lines 33 – 35: “The lens which becomes a very, very slight mechanical tissue strain on the surrounding tissue, if any at all.”*

(C) *Column 2, lines 39 – 41: “where surface pressure can occur on sensitive*

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tissue parts, this should be kept as low as possible.”

(D) Column 2, lines 42 – 43: “the lens should be free from any inner mechanical stresses.”

Any lens associated with the above descriptions could not accommodate because:

(A) The lens needs flexibility and has to move to accommodate, rather than be “mechanically stable”.

(B) The lens must subject the surrounding tissue to strain in order to move to accommodate.

(C) The lens must exert significant pressure on parts of the eye it is in contact with in order to move.

(D) An accommodating lens has to flex and move, therefore, it must be subjected to minor mechanical stresses.

In addition, all accommodating lenses that have a chance to be reduced to practice have to be placed inside the human intact capsular bag without there being a tear in the bag. The only way to have such a bag is to tear a continuous curve circular or oval opening in the anterior capsule i.e. a capsulorhexis. This surgical technique had not been developed in 1984, when the patent issued.

Mechanically, a design with the optic completely surrounded by a haptic, be it to make it a circular, oval or asymmetrical design, would not effectively accommodate. There are no individually opposed haptics surrounding the optic to effect a mechanically effective design to allow the optic to move relative to the haptics.

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An accommodating lens has to center in the middle of the pupil and there are no centration structures in any of these lens designs, nor are they mentioned in the text.

Finally, if Schlegel had intended that his lenses would accommodate, he would have made the claim since this would have been a major breakthrough in lens design back in 1984, the year the patent issued.

Furthermore, the lens of Schlegel's Figs. 1 and 2 is entirely different from the one in Figs. 3 and 4 which the Examiner mainly uses in his rejection, but in some instances refers to a feature of Fig. 1, e.g., the Examiner's reference to Claim 100 and the ridge 17 of Fig. 1 of Schlegel. The Examiner contends that the Schlegel lens of Figs. 3-4 is sufficiently flexible so that it is inherently capable of accommodating; however, it is clear throughout the Schlegel patent that he wants a lens to have more rigidity.

That being said, it is noted that the present claims as amended more precisely define over the Schlegel lens. One very important structure in an accommodating lens is the need to have symmetrical haptics and which clearly is not the case of Schlegel as can be readily seen in Fig. 3. A present lens preferably has the front and back radii essentially the same as seen in Fig. 17 and also in Figs. 5 – 8 since the lenses of Figs. 16 – 20 are described in this application as being identical to the lens 32 of Figs. 1 through 8 and differ only in the protrusions from the haptics, such as the knobs, 118, shoulders 114, etc. Also, the haptics have a width like the diameter of the lens as claimed which certainly is not the case of the Fig. 3 Schlegel lens. Furthermore, the present lens is constructed and operable to move the optic posteriorly and anteriorly relative to the outer ends of the haptics in response to forces imported by ciliary muscle relaxation and constriction to provide vision accommodation, and there is nothing in Schlegel that in any way relates to such a construction.

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Finally, for the reasons stated on pages 21 and 22 of the previous response, Claim 65, 72, 80, 85-86, 91, 93-95, should not be considered withdrawn inasmuch as they read on the elected species of Figure 18 as explained before.

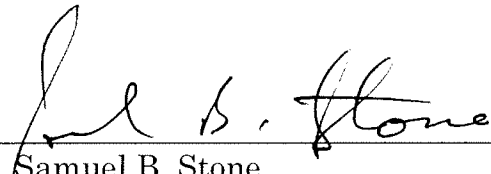
Favorable reconsideration and a Notice of Allowance are earnestly solicited.

The Commissioner is authorized to charge any fee which may be required in connection with this Amendment to deposit account No. 15-0665.

Respectfully submitted,

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